

AMENDMENTS TO THE DRAWINGS

Applicants hereby submit replacement sheets for Figs. 4, 5, 6(a) and 6(b).

Attachment: Three (3) Replacement Sheets

REMARKS

Claims 1-3 are all the claims pending in the application.

Claims 1-3 are rejected.

The drawings are objected to as failing to comply with 37 C.F.R. 1.84(p)(5) because they do not include reference signs mentioned in the specification.

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tajima (JP 20011286118) in view of Hazelton (U.S. Patent No. 6,323,567).

The Applicants traverse the rejections and request reconsideration.

Drawings

The Applicants respectfully submit replacement drawings corresponding to Figs. 4-6 to overcome the noted objections.

Specification

The Applicants include a new Abstract to overcome the objections thereto.

Claim Rejections Under 35 U.S.C. § 103

Rejection of Claims 1-3 based on Tajima in view of Hazelton

The Examiner appears to use Tajima for its alleged teachings related to all the elements except the bobbin, armature and the cooling system. The secondary reference Hazelton is used for its alleged teaching related to these features.

At the outset, it is clear that the inventive aspect of this application is not related to merely having a cooling system for a voice coil type linear motor. As is noted in the background section, the Applicants admit that such cooling systems were known in the art. For example, Figs. 5 and 6 of the present Specification show such cooling systems in relation to JP-A-8-214530 and JP-A-2002-27734. Rather, the present invention is related to a voice coil type linear motor with a specific structure that provides the advantages with sufficient cooling effect and free from reduction in thrust and optimal in terms of dimensions and cost.

The Applicants respectfully submit that neither Hazelton nor Tajima suggest a bobbin as required by the present invention.

In the present invention, a gap between the bobbin 17 wound by the armature coil 18 and the case 23 is a cooling path.

On the contrary, in Hazelton and Tajima, a gap between the bobbin and the case is not a cooling path. A bobbin is directly wound by a coil, and a gap is not formed between a surface of the bobbin and the coil. Even if a gap may be formed between the coils, this is not large enough to form a cooling path.

In Hazelton, as shown in Figs. 2, 3 and 7, the second body section 54 is located at a side inner than the coil assembly 16. The coil 32 is not wound on the second body section 54. This is known by a point that a gap is provided between the coil 32 and the second body section 54. Further, the gap is too large to form a cooling path. It should be noted that, the second body section 54 is not a bobbin.

Neither Hazelton nor Tajima discloses “a cooling path is divided into a fluid supply side and a fluid discharge side by dividing a gap between the bobbin and the case, and the fluid supply port and the fluid discharge port are provided on the same surface of the case.”

In the present invention, a gap between the bobbin and the case is a cooling path, the gap is divided into a fluid supply side and a fluid discharge side, and the fluid supply port and the fluid discharge port are provided on the same surface of the case.

On the contrary, since there is no bobbin in Hazelton and Tajima, there is no gap between a bobbin and a case. In Hazelton and Tajima, a member for forming a cooling path is separately used. Further, a cooling path is not divided into a fluid supply side a fluid discharge side. Simply, one side of a cooling path is a fluid supply side, and the other side thereof is a fluid discharge side. Therefore, it is impossible to provide a fluid supply port and a fluid discharge port on the same surface of a case as the present invention. Thus, since it is impossible to perform the fluid supply/discharge communicating with the outside at one side, the structure is believed to be completely different from the present invention.

The Applicants amend the claim to further clarify the above distinction.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable

expectation of success must both be found in the prior art, not in applicant's disclosure. MPEP 2143 *citing In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

It is clear that the combined teachings do not suggest all the claim limitations. Since the "all limitations" prong of the three prong test fails, the Examiner has not established prima facie obviousness.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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